IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

We claim:

Claims 1-19 (Cancelled)

20. (Currently amended) A controller for a surgical laser, adapted to control a laser that can be connected to the controller in order to produce a cut surface inside ~~an~~ a crystalline eye lens using multiple laser pulses, wherein the controller is designed in such a way that the pulse of energy of each of the laser pulses is limited to the range from 1 pJ to 1 µJ.

21. (canceled)

22. (Currently amended) A controller according to Claim 20, wherein the controller is designed so that ~~the size of the bubbles~~ a bubble produced in the eye lens by ~~the~~ a laser pulse is limited to a diameter of at most 50 µm.

23. (Previously presented) A controller according to Claim 20, wherein the controller is designed so that the thickness of the cut surface is limited to at most 5 µm.

24. (Previously presented) A controller according to Claim 20, wherein the controller is designed in such a way that the cut area is produced by at least 10,000 laser pulses.

25. (Previously presented) A controller according to Claim 20, wherein the controller is designed so that a cut area of 1 mm^2 to 10 mm^2 is produced.

26. (Previously presented) A controller according to Claim 20, wherein the controller is designed so that two successive laser pulses are located at a distance from one another, such that the faults produced by the laser pulses in the eye lens do not touch or overlap one another.

27. (Previously presented) A controller according to Claim 20, wherein the controller is designed to control the laser in order to produce multiple cut surfaces in a predetermined arrangement relative to one another.

28. (Previously presented) A controller according to Claim 20, wherein the controller is designed to control the laser so that one or more cut surfaces are produced, to thereby increase the ability of an eye lens to accommodate by at least two diopters.

29. (Previously presented) A surgical laser connected to a controller adapted to control the laser to produce a cut surface inside an eye lens using multiple laser pulses.

30. (Currently amended) A method for the treatment of an eye lens, wherein a cut surface is produced inside the crystalline eye lens using multiple laser pulses, wherein the pulse energy of each of the laser pulses is limited to a range from 1pJ to 1 μJ.

31. (Canceled)

32. (Previously presented) The method according to Claim 30, wherein bubbles are produced in the eye lens by the laser pulse, the bubbles having a diameter of at most 50 μm.

33. (Previously presented) The method according to Claim 30, wherein the thickness of the cut surface is limited to at most 5 μm.

34. (Previously presented) The method according to Claim 30, wherein the cut area is produced by at least 10,000 laser pulses.

35. (Previously presented) The method according to Claim 30, wherein a cut area with a surface of 1 mm^2 to 10 mm^2 is produced.

36. (Previously presented) The method according to Claim 30, wherein two successive laser pulses are produced at a distance from one another in such a way that the faults produced by the laser pulses in the eye lens do not touch or overlap one another.

37. (Previously presented) The method according to Claim 30, wherein multiple cut surfaces are produced in a predetermined arrangement relative to one another.

38. (Previously presented) The method according to Claim 30, wherein one or more cut surfaces are produced in order to increase the ability of accommodation of an eye lens by at least two diopters.

39. (New) The controller according to claim 20, wherein the controller is designed to produce a cut surface with low roughness and good smoothness to result in enhanced elasticity of the crystalline eye lens.

40. (New) The method according to claim 30, wherein a cut surface with low roughness and good smoothness is produced inside the eye lens and the elasticity of the crystalline eye lens is enhanced by the cut surface.